

Exercise 1 When studying trigonometry, you will learn that \sin is an odd function and \cos is an even function. This means that for all inputs x , $\sin(-x) = -\sin(x)$ and $\cos(-x) = \cos(x)$. Additionally, \sin is not even, and \cos is not odd.

- (a) Consider the function f defined by $f(x) = 7.2 \sin(x)$. f is

Multiple Choice:

- (i) even.
- (ii) odd. ✓
- (iii) neither even nor odd.

- (b) Consider the function g defined by $g(x) = \cos(x) + 308$. g is

Multiple Choice:

- (i) even. ✓
- (ii) odd.
- (iii) neither even nor odd.

- (c) Consider the function h defined by $h(x) = \sin(x) + \cos(x)$. For reference, here is a graph of h on Desmos:

Desmos link: <https://www.desmos.com/calculator/t0r1zihobf>

h is

Multiple Choice:

- (i) even.
- (ii) odd.
- (iii) neither even nor odd. ✓